

Application Serial No.: 09/898,266

Attorney Docket No.: 37077.001005

REMARKS

Claims 1-59 are pending in the application. By this Amendment, claim 1 is amended and claims 57-59 are added. Reconsideration and allowance in view of the foregoing amendments and following remarks are respectfully requested. No new matter has been added by this Amendment.

Applicant filed a Supplemental Information Disclosure Statement on November 26, 2003. Applicant respectfully requests consideration of the references cited in the Supplemental Information Disclosure Statement and an initialed copy of the PTO-1449 reflecting such consideration.

Applicant believes that the application is now in condition for allowance and notice thereof is respectfully requested.

I. The October 2, 2003 Interview

Applicant appreciates the courtesies extended to Applicant and Applicant's representative during the October 5, 2003 Interview with Examiner Fleurantin and Examiner Corrielus. In the Interview, the teachings of Zamanian and both the disclosed and the claimed invention were discussed. Applicant submitted that Zamanian fails to teach or suggest the claimed invention. Further aspects of the discussion in the Interview are discussed below.

As discussed in telephone conversations with Examiner Fleurantin, for example on December 1, 2003, Applicant looks forward to further discussing the present application with the Examiners.

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II. THE CLAIMS DEFINE PATENTABLE SUBJECT MATTER**The 35 U.S.C. §103 Rejection based on Zamanian**

The Office Action rejects claims 1-56 under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,014,670 to Zamanian et al. (hereinafter "Zamanian"). The rejection is respectfully traversed.

Claim 1 of the present application recites a method for providing an education decision support library in an educational environment to enable user access to information, over a processor based network, wherein the information assists the user in making a decision in the educational environment, the method comprising the steps of loading operational data from one or more sources into a database; providing one or more tools to extract and transform data into a decision support resource; providing one or more analytical tools that enable a user to manipulate the data; and accessing the one or more analytical tools over the processor based network. It is respectfully submitted that Zamanian fails to teach or suggest each of the features set forth in claims 1-56. Applicant's various reasons for such traversal are set forth in turn below.

In column 1, lines 12-52, Zamanian describes the background of the Zamanian patent. Zamanian teaches that due to the increased amounts of data being stored and processed, operational databases are constructed, categorized, and formatted in a manner conducive for maximum throughput, access time, and storage capacity. Zamanian further describes that unfortunately, the raw data found in these operational databases often exist as rows and columns of numbers and code which appears bewildering and incomprehensible to business analysts and decision makers. Furthermore, the scope and vastness of the raw data stored in modern databases renders it harder to analyze. Hence, Zamanian teaches,

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applications were developed in an effort to help interpret, analyze, and compile the data so that it may be readily and easily understood by a business analyst. This is accomplished by mapping, sorting, and summarizing the raw data before it is presented for display. Zamanian teaches that thereby, individuals can now interpret the data and make key decisions based thereon.

In column 1, line 29, Zamanian further describes that extracting raw data from one or more operational databases and transforming it into useful information is the function of data "warehouses" and data "marts." In data warehouses and data marts, the data is structured to satisfy decision support roles rather than operational needs. Zamanian teaches that before the data is loaded into the data warehouse or data mart, the corresponding source data from an operational database is filtered to remove extraneous and erroneous records; cryptic and conflicting codes are resolved; raw data is translated into something more meaningful; and summary data that is useful for decision support, trend analysis or other end-user needs is pre-calculated. In the end, the data warehouse is comprised of an analytical database containing data useful for decision support. Zamanian describes that a data mart is similar to a data warehouse, except that it contains a subset of corporate data for a single aspect of business, such as finance, sales, inventory, or human resources. With data warehouses and data marts, useful information is retained at the disposal of the decision makers. Zamanian further describes that one major difficulty associated with implementing data warehouses and data marts relates to that of data transformation. A data transformation basically includes a sequence of operations that transform a set of input data into a set of output data.

Accordingly, Zamanian teaches aspects of the Zamanian patent in column 2, lines 50-67. Zamanian teaches that the Zamanian invention pertains to a transformation description

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language (TDL) used for specifying how data is to be manipulated in a data warehousing application. Zamanian describes that the TDL is comprised of one or more sources for storing raw data, one or more transformation objects for processing the raw data according to predefined instructions, and one or more targets for storing the processed data. A mapping is used for directing the data flow between the I/O ports corresponding to the sources, the plurality of transformation objects, and the targets. The mapping specifies the connectivity between the sources, transformation, and target objects as well as the order of these connections. Zamanian further describes that there are a number of different transformations which can be performed to manipulate the data. Some such transformations include: an aggregator transformation, an expression transformation, a filter transformation, a lookup transformation, a query transformation, a sequence transformation, a stored procedure transformation, and an update strategy transformation.

In column 3, lines 53-61, Zamanian teaches that FIG. 1 is a block diagram of a client/server system upon which the present invention may be practiced. The system may incorporate a number of clients 101-103 (e.g., personal computers, workstations, portable computers, minicomputers, terminals, etc.), upon which various client processes are used to perform desired tasks (e.g., inventory, payroll, billing, finances, etc.). The data relating to these various tasks can be entered, updated, and retrieved by any one of the clients 101-103 through one or more servers 107.

Further, in column 4, lines 23-35, Zamanian teaches further aspects of the data transformations described in the Zamanian patent. Zamanian teaches that FIG. 2 shows the data flow of the change data capture process 201 and the extract, transform, and load process 202 used to create data warehouses 203-205. Raw data are stored in source tables residing

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within one or more source operational databases 104-106. Anytime a new entry is entered or an old entry is updated, the changes are captured and staged by the change data capture process 201. Zamanian further describes that the extraction, transformation, and loading process 202 then makes the appropriate transformations and propagates the changes to the appropriate target tables of data warehouses 203-205. A repository 206 is used to store the requisite session and mapping information used by the extracting, transformation, and loading process 202. Repository 206 also contains information regarding what data should be captured from the source tables of the operational databases 201-202. Accordingly, Zamanian is directed to data transformations in data warehousing, in contrast to the claimed invention.

In further discussion of the present claimed invention, claim 1 recites a method for providing an education decision support library in an educational environment to enable user access to information, over a processor based network, wherein the information assists the user in making a decision in the educational environment. The Office Action (page 2, last paragraph) asserts that Zamanian teaches a method for providing an education decision support library in an educational environment to enable user access to information, over a processor based network, wherein the information assists a user in making a decision in the educational environment. As discussed in the October 2, 2003 Examiner Interview, these are very specific assertions as to the teachings of Zamanian. However, Zamanian does not appear to make any reference or teaching regarding decision making in an educational environment, and does not appear to even make any reference to an educational environment. Accordingly, such assertions in the Office Action regarding the teachings of Zamanian in an educational environment are simply unsupported. The Examiner is requested to clarify in

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what manner Zamanian teaches "a method for providing an education decision support library in an educational environment," i.e., where is this teaching in Zamanian.

Further, Applicant traverses the rejection of claim 1 under 35 U.S.C. §103 for additional reasons. In the Office Action (page 3, line 14) the Office Action asserts that Zamanian implicitly indicates the data warehouse is comprised of an analytical database containing data useful for decision support, which is readable as providing one or more analysis tools that enable a user to manipulate the data. However, as discussed in the October 2, 2003 Examiner Interview, Applicant traverses these assertions.

That is, the Office Action indicates that the data warehouse is comprised of an analytical database containing data useful for decision support. However, Applicant submits that it does not fairly flow from such assertions - that the claimed analytical tools are taught by Zamanian. That is, what is the Office Action utilizing so as to teach the claimed analytical tools? While Zamanian teaches data, and the transformation of that data, Applicant submits that this clearly falls short of teaching the claimed analytical tools. That is, simply because the data is provided, Applicant queries how this can be interpreted to teach the particular analytical tools (as recited in the method claim 1). In short, it appears that the Office Action is reading into Zamanian the claimed analytical tools based on the presence of data in Zamanian. Zamanian fails to fairly teach or suggest each of the features of claim 1.

Further, claim 57 has been added to further recite the claimed invention. That is, claim 57 recites the method of claim 1, wherein the providing one or more analytical tools that enable a user to manipulate the data allow the user to manipulate the data so as to assist in making a decision in the educational environment. Accordingly, claim 57 recites further

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detail regarding the analytical tools.

Further, the features of claim 36 were discussed in the October 2, 2003 Examiner Interview. Claim 36 recites a method for enabling an administrator to access data relating to the operation of an educational institution, the method comprising applying a business rule to operational data collected for one or more administrative topics related to the educational institution; entering the data into a multidimensional data structure based on the business rule; and presenting the administrator the multidimensional data structure through a network interface, wherein the network interface enables the administrator to manipulate the multidimensional data structure; analyzing the operational data in the multidimensional data structure based on the manipulation of the multidimensional data structure by the administrator.

In particular, claim 36 recites a method for enabling an *administrator* to access data relating to the *operation of an educational institution*, the method comprising applying a *business rule* to operational data collected for one or more administrative topics related to the educational institution; and entering the data into a multidimensional data structure based on the business rule. Accordingly, claim 36 recites a process performed by an administrator in the particular environment of an educational institution. However, the Office Action does not fairly reflect the features of method claim 36. In particular, the Office Action asserts on page 8, line 2, that Zamanian further teaches presenting *the administrator* the multidimensional data structure through a network interface. However, this assertion is deficient in that it is fully unclear how Zamanian teaches such an administrator. The Examiner is respectfully requested to clarify in what manner Zamanian teaches the asserted "administrator." It appears that Zamanian is devoid of any such teaching.

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Also, added claim 58 further recites the claimed invention. That is, claim 58 recites the method of claim 36, wherein the analyzing the operational data in the multidimensional data structure based on the manipulation of the multidimensional data structure by the administrator is performed in operation of the educational institution so as to provide decision support in the educational institution.

Further, independent claim 59 has been added by the present Amendment. Claim 59 further recites the environment of the claimed invention in making a decision in the educational environment.

For at least the above reasons, Applicant respectfully submits that the independent claims 1 and 36 define patentable subject matter. Further, independent claims 31, 40, 45, 52 and 53 define patentable subject matter for reasons similar to those set out above with regard to claims 1 and 36. The dependent claims, including new claims 57 and 58, variously depend from the independent claims and therefore also define patentable subject matter for the reasons set forth above with respect to the independent claims, as well as for the additional features such dependent claims recite.

For example, claim 4 recites the method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from a human resources department. The Office Action (page 4, line 10) asserts that Zamanian teaches the method as claimed in claim 4. The Office Action refers to Zamanian in column 4, lines 22-23. However, such portion of Zamanian appears to merely teach that FIG. 2 of Zamanian shows the data flow of the change data capture process 201 and the extract, transform, and load process 202 used to create data warehouses 203-205. Such disclosure of Zamanian in no way teaches the particulars of claim 4 including loading data from a human resources

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department. Accordingly, the assertions in the Office Action regarding claim 4 appear clearly unsupportable. Applicant traverses the rejection of claim 21 for similar reasons.

Further, claim 7 recites wherein the step of loading operational data from one or more sources further includes loading data from a student information database. The Office Action asserts on page 4, last line, that Zamanian teaches the method as claimed, wherein the step of loading operational data from one or more sources further includes loading data from a student information database. Applicant fully does not understand such assertion, and submits that such assertion is unsupportable. Applicant respectfully queries how and in what manner Zamanian teaches the particulars of claim 7 relating to a student information database. Applicant similarly traverses the rejection of claims 17 and 20.

Further, claim 16 recites further features relating to the particular environment in which the invention is practiced. That is, claim 16 recites the method of claim 1, wherein the step of loading operational data from one or more sources further includes loading data from *Test Standards of Learning (SOL)*. In the Office Action, page 5, last line, the Office Action asserts that the features of claim 16 are taught by Zamanian. The Office Action refers to Zamanian in column 19, lines 1-67. However, upon review of such disclosure, Applicant submits that Zamanian fails to make any mention of *Test Standards of Learning (SOL)*, much less, the particulars of claim 16. Zamanian does describes that the discussed TDL could potentially become a standard for exchanging transformation metadata across various programs; and that furthermore, TDL could potentially be extended to capture the complete behavior of a mapping (i.e., the internal dependencies and the data flow across the acyclic, directed graph structure of the mapping). However, this disclosure of course fails to teach or suggest the features of claim 16

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The above discussion shows illustrative deficiencies of Zamanian in teaching or suggesting the claimed invention. However, Applicant submits that there are various other deficiencies. For example, Applicant submits that the Office Action is fully unclear as to how Zamanian teaches the features of claims 18, 22, 26 and/or 30. The Examiner is requested to clarify the manner in which Zamanian assertedly teaches the claimed invention, or withdraw the grounds of rejection.

It is respectfully submitted that claims define patentable subject matter.

Reconsideration and withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

III. CONCLUSION

For at least the reasons outlined above, Applicant respectfully asserts that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

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For any fees due in connection with filing this Response the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted
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